

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A wiring substrate, in which a wiring stacked portion including at least one conductor layer including an internal conductor layer and at least one resin layer is stacked on a principal face of a core substrate including a substantially cylindrical through hole conductor in a through hole extending therethrough and a filling material filling the hollow portion of said through hole, comprising:

a cover-shaped conductor portion covering an end face of said through hole just over a principal face of said core substrate and connected to said through hole conductor; and

~~an~~said internal conductor layer provided on a side of the resin layer opposite said cover-shaped conductor layer,

wherein a connection portion composed of at least one via conductor buried in said at least one resin layer brings said cover-shaped conductor portion and said internal conductor layer into conduction, and

wherein ~~none of said~~ no via conductors ~~composing said connection portion are provided~~ positioned above said through hole.

2. (withdrawn): The wiring substrate according to claim 1,
wherein at least two of said resin layer are sandwiched between said cover-shaped conductor layer and said internal conductor layer, and

said via conductor composed of filled vias is buried in each of said resin layer and is stacked substantially concentrically in plurality to construct said connection portion.

3. (previously presented): The wiring substrate according to claim 1, wherein a distance from a center axis of said at least one via conductor constructing said connection portion to an outer edge of said through hole is from 125 μm to 500 μm .

4. (withdrawn): The wiring substrate according to claim 2, wherein a distance from a center axis of said via conductor constructing said connection portion to an outer edge of said through hole is from 125 μm to 500 μm .

5. (currently amended): A wiring substrate comprising:
a core substrate, including at least one through hole provided through said core substrate which is an insulating substrate, at least one through hole conductor which is substantially cylindrical provided on an inner circumference of said at least one through hole, and a filling material filling a hollow portion of said at least one through hole;

a first earthing conductor layer provided on at least one principal face of said core substrate and in a shape covering an end face of said through hole and having conduction to said at least one through hole conductor;

a plurality of resin layers provided over said first earthing conductor layer;

a transmission line provided between any two of said plurality of resin layers and positioned above said first earthing conductor layer;

a second earthing conductor layer provided over said plurality of resin layers and in a shape containing said transmission line; and

a connection portion including two or more via conductors buried individually in said plurality of resin layers, said two or more ~~via-conductor~~ conductors being provided to bring said first earthing conductor layer and said second earthing conductor layer into conduction,

wherein ~~none of said~~ no via conductors are positioned above said at least one through hole.

6. (currently amended): The wiring substrate according to claim 5, wherein a stacked via structure, in which ~~a plurality of filled vias~~ said two or more via conductors are concentrically contiguous to each other at a position avoiding that above said through hole is provided.

7. (new): A wiring substrate comprising:
a core substrate, including at least one through hole provided through said core substrate which is an insulating substrate, at least one through hole conductor which is substantially cylindrical provided on an inner circumference of said at least one through hole, and a filling material filling a hollow portion of said at least one through hole;

a first earthing conductor layer provided on at least one principal face of said core substrate and in a shape covering an end face of said through hole and having conduction to said at least one through hole conductor;

a plurality of resin layers provided over said first earthing conductor layer;

a transmission line provided between any two of said plurality of resin layers and positioned above said first earthing conductor layer;

a second earthing conductor layer provided over said plurality of resin layers and in a shape containing said transmission line; and

a connection portion including two or more via conductors buried individually in said plurality of resin layers, said two or more via conductors being provided to bring said first earthing conductor layer and said second earthing conductor layer into conduction,

wherein none of said via conductors are positioned above said at least one through hole,
and

wherein said transmission line is enclosed by said first and second earthing conductor layers.

8. (new): The wiring substrate according to claim 7, wherein said transmission line is enclosed by the first and second earthing conductor layers so as to shield the transmission line from external noise.